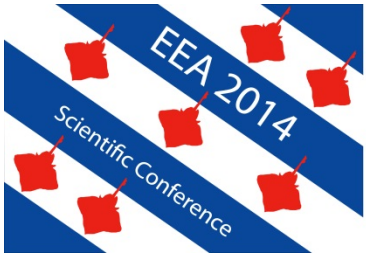
18th EEA Scientific Conference
7th – 9th November 2014
Abstract submission form



Leeuwarden
The Netherlands
7-9 November 2014

Deadline of submission: 30th September 2014

	Please fill out all sections
Title of presentation	*Suitability of lesser spotted dogfish (Scyliorhinus canicula) as indicator of trace metals pollution in the Spanish Marine Strategy monitoring programs*
Oral / Poster presentation	*Poster presentation*
Theme	*elasmobranch policy*
Author	*V. Besada[1], F. Schultze[1], M. López[1], Rodríguez-Cabello[2], C.*
Institution/Organisation	*Instituto Español de Oceanografía*
Address	*[1] Instituto Español de Oceanografía, Centro Oceanográfico de Vigo. Subida a Radio Faro 50, 36390 Vigo. Spain. [2] Instituto Español de Oceanografía. Promontorio San Martin s/n. 39004. Santander, Spain*
Phone*	+34986492111
Email*	Victoria.besada@vi.ieo.es

*corresponding author

Please fill in abstract (maximum 300 words)

The Marine Strategy Framework Directive (MSFD, 2008/56/EC), is the main instrument for the protection of the marine environment in Europe. The Spanish initial assessment of the environmental status of their national marine waters, has revealed several gaps and lack of information and knowledge regarding descriptor 8 (contamination and its effects) in all Spanish waters.

In particular, there is a need to identify a fish species that could be used as pollution indicator for the Spanish Atlantic and Mediterranean waters .The lesser spotted dogfish (*Scyliorhinus canicula*), could be considered as an alternative species to those broadly used in northern Europe.

In order to assess the suitability of this specie as indicator of pollution for MSFD purposes, this study evaluated trace metals levels (As, Hg, Cd, Cu, Zn, Cr and Ni) in muscle tissue of specimens collected in three different Spanish geographical areas: two in the North (Galician and Cantabrian areas) and one in the South.

Females were collected by IEO scientific staff aboard research vessels during 2012. The analysis of muscle tissue samples includes a nitric acid digestion in a microwave oven. Metals were analyzed by Atomic Absorption Spectrometry (F-AAS, GF-AAS, CV-AAS). The quality of the analyses is demonstrated by the results obtained in intercalibration exercises, such as QUASIMEME. The internal QC includes analyses of duplicate samples and procedural blanks as well as control charts of CRMs.

Only statistically significant differences were observed between the three zones for As and Hg. Regarding Pb, all samples analyzed were below or close to the detection limit for the analytical method used. For other

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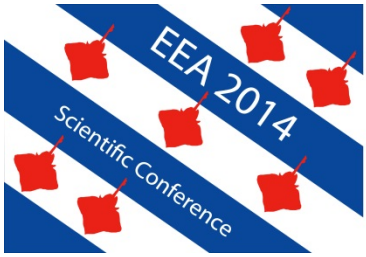

metals concentrations, no significant differences between zones were observed. Further studies on the influence of environmental and biological factors on metal dynamics are needed.

Experimental values for Hg, Pb and Cd were far below the EU maximum levels for human consumption established by EC Regulations.

Keywords (max 4): *Lesser spotted dogfish, trace metals, Atlantic, Spain*

Please submit the completed form through the online registration for or email to:
eea2014@elasmobranch.nl

Note: Oral presentation submissions may be requested to be presented as a poster depending on the number of delegates and the number of available oral presentations. Oral presentations will be chosen from the abstracts by a committee judging on the scientific relevance and quality. **Presenters will be contacted by the committee about the acceptance of their contribution after the deadline of submissions.**